

BEFORE THE STORM

CHERRY POINT DESTRUCTIVE WEATHER GUIDE



UNDERSTAND - PREPARE - ENDURE - RECOVER - MAINTAIN

Overview

Analysis of meteorological and oceanographic data for the MCAS Cherry Point area indicates that the most serious threat of destructive weather damage comes from tropical cyclones in which winds and storm surges of destructive proportions are sustained for long periods of time.

The annual hurricane season for the coastal North Carolina region is from June 1 to Nov.30.

The Cherry Point area will be in Destructive Weather Condition V for the hurricane season (See page 3 for a list of the different Destructive Weather Conditions). Storms of non-tropical origin, while of shorter duration and less intensity, may also disrupt operations and endanger life and property.

When destructive weather looms, the MCAS Cherry Point Emergency Operations Center is activated. The EOC is prepared to handle Cherry Point's emergency, logistics and communications concerns.

In order to stay safe during the hurricane season, individuals in the Cherry Point area need to understand the types of storms, hurricane categories, destructive weather conditions, how to properly prepare for severe weather, what actions to take during severe weather, what actions to take after severe weather has occurred and what actions to take if an emergency situation arises.

COMMANDING OFFICER
MCAS CHERRY POINT
Col. Douglas A. Denn

PUBLIC AFFAIRS OFFICER
Maj. Aisha Bakkar

PRESS CHIEF
Sgt. Lisa R. Strickland

LAYOUT AND DESIGN
Pfc. Samantha H. Arrington

GRAPHIC DESIGNER
Mary B. Hill

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Cover photo taken by Sgt. Rocco DeFlippis.

Severe Weather Types

The types of severe weather listed in the Air Station Destructive Weather Order (ASO 3140.2N) that the MCAS Cherry Point area is susceptible to are storms, thunderstorms, tornadoes, gales and tropical cyclones. Each has its own destructive characteristics.

Gale:
Sustained winds of 39-54 mph, not associated with a tropical storm.

Storm:
Any disturbed state of the atmosphere, especially affecting the Earth's surface, and strongly implying destructive and otherwise unpleasant weather. Storms range in scale from tornadoes and thunderstorms to tropical cyclones to synoptic-scale extra-tropical cyclones.

Thunderstorm:
A storm emitting thunder and lightning, which may be accompanied by extremely strong wind, gusts, torrential rainfall and hail.

Severe Thunderstorm:
A thunderstorm accompanied by wind gusts of 58 mph or greater, or hail three-quarters of an inch or greater in diameter at the surface.

Tornado:
A violent, rotating column of air, which forms a pendant, usually from a cumulonimbus cloud whose circulation reaches the ground. Wind forces within a tornado are estimated to reach speeds of 115 mph to more than 250 mph.

Tropical cyclones
Tropical cyclones are systems of cyclonically rotating winds characterized by a rapid decrease in pressure and increase in wind speed toward the center of the storm. Three stages of intensity are associated with tropical cyclones: tropical depression (winds 38 mph or less), tropical storm (39 to 73 mph) and hurricanes (winds greater than 74 mph). There are five categories of tropical cyclones.

Tropical Wave:
A trough of low pressure in the trade wind easterlies.

Tropical Disturbance:
An area of circulation in the tropics that maintains its identity for 24 hours or more.

Tropical Depression:
An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph or less.

Tropical Storm:
An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39-73 mph. At this point, the distinctive cyclonic shape starts to develop, although an eye is not usually present.

Hurricane:
A tropical cyclone with sustained winds greater than 74 mph. In a hurricane, storm winds move in a counterclockwise pattern around the eye of the storm. These storms originate in the tropical conditions of the Atlantic Ocean as tropical depressions, disturbances, storms and finally, hurricanes. A hurricane's destructive power is determined by the interaction of storm surge, wind, tide level and precipitation.

To make comparisons easier and to make the predicted hazards of a hurricane more uniform, the National Oceanic and Atmospheric Administration developed the Saffir/Simpson Hurricane Damage Potential Scale. Hurricanes can strengthen and weaken and be assigned to different categories at different times in their evolution.

Hurricanes

Category One:
Sustained winds of 74-95 mph or storm surge of 4-5 feet above normal sea state. No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery and trees. Some coastal flooding and minor pier damage are possible.

Category Two:
Sustained winds of 96-110 mph or storm surge up to 6-8 feet above normal sea state. May cause roofing, door and window damage to buildings. Considerable damage to vegetation, mobile homes and piers. Coastal and low-lying escape routes flood 2-4 hours before the arrival of the eye of the storm. Small craft in unprotected anchorages will likely break moorings.

Category Three:
Sustained winds 111-130 mph or storm surge 9-12 feet above normal sea state. Some structural damage to small residences and utility buildings. Mobile homes are destroyed. Flooding near the coast destroys smaller structures with larger structures damaged by floating debris. Terrain less than 5 feet above mean sea level may be flooded inland as far as eight miles.

Category Four:
Sustained winds of 131-155 mph or storm surge 13-18 feet above normal sea state. More extensive damage with some complete roof failure on small residences. Major erosion of beach areas. Major damage to lower floors of structures near the shore. Terrain less than 10 feet above MSL may be flooded, requiring massive evacuation of residential areas inland as far as six miles.

Category Five:
Sustained winds greater than 155 mph or storm surge greater than 18 feet above normal sea state. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away. Major damage to lower floors of all structures located less than 15 feet MSL and within 500 yards of the shoreline. Massive evacuation of residential areas on low ground within 5-10 miles of the shoreline may be required.

Understand Destructive Weather

CONDITIONS OF READINESS SET BY THE COMMANDING OFFICER

During the hurricane season, the commanding officer of MCAS Cherry Point sets the following conditions of readiness for the air station based on the current destructive weather threat. Destructive weather conditions are available online at <http://www.cherrypoint.marines.mil>.

Destructive Weather Condition V - Normal operations during hurricane season, set June 1 through Nov. 30. This year, DWC was set May 24 due to threat of severe weather.
Destructive Weather Condition IV - The trend indicates a possible threat of destructive winds of hurricane, tropical storm or storm within 72 hours.
Destructive Weather Condition III - Destructive winds are possible in the general area within 48 hours.
Destructive Weather Condition II - Destructive winds are anticipated in the general area within 24 hours.
Destructive Weather Condition I - Destructive winds are anticipated in the general area within 12 hours.
Destructive Weather Condition IC (Caution) - Destructive winds are forecast to affect Cherry Point within 6 hours.
Destructive Weather Condition IE (Emergency) - Destructive winds are occurring in the Cherry Point area.
Destructive Weather Condition IR (Recovery) - The destructive weather system has passed the Cherry Point area, but safety and storm hazards remain.

WARNINGS AND ADVISORIES SET BY MCAS CHERRY POINT WEATHER OFFICE

The Cherry Point Weather Office sets the following warnings and advisories for the air station and surrounding area based on the current destructive weather threat:

Thunderstorm Condition II – Destructive winds and accompanying thunderstorms are within 25 nautical miles of Cherry Point or expected within 6 hours. Associated lightning and thunder, torrential rain, hail severe downbursts and sudden wind shifts are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice.

Thunderstorm Condition I – Destructive wind and accompanying thunderstorms are within 10 NM or expected within one hour. Associated lightning and thunder, torrential rain, hail, severe downbursts and sudden wind shifts are possible. Take immediate safety precautions and shelter. Per Air Station Order 3710.5, “Fueling operations and ordnance operations to include arming and de-arming shall be terminated when a thunderstorm or a lightning discharge has occurred within 5 NM of the airfield. The airfield operations officer is responsible for determining when fueling and ordnance operations should be discontinued due to weather conditions.”

Severe Thunderstorm Condition II – Severe thunderstorms are defined as having wind speeds of greater than 50 knots, hail with diameter greater than three-quarters of an inch and/or tornadoes. Destructive winds accompanying the severe thunderstorms are within 25 NM, or expected within six hours. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take precautions that will permit establishment of an appropriate state of readiness on short notice. Additionally this warning will be set if any portion of the installation is within a National Weather Service

Watch Box and the weather is progressing as forecasted.

Severe Thunderstorm Condition I – Severe thunderstorms are defined as having gusts of wind greater than 50 knots, hail with diameter greater than three-quarters of an inch and/or tornadoes. Destructive winds accompanying the severe thunderstorms are within 10 NM, or expected within one hour. Associated lightning/thunder, torrential rain, hail, severe downbursts, sudden wind shifts and tornadic activity are possible. Take immediate safety precautions and shelter. Additionally this warning will be set if any portion of the installation is within a National Weather Service Watch Box and the weather is progressing as forecasted.

Tornado Condition II – Tornados are within 25 nautical miles or expected within six hours. Additionally this warning will be set if any portion of the installation is within a National Weather Service Watch Box and the weather is progressing as forecasted.

Tornado Condition I – Tornados are within 10 nautical miles or expected within one hour. Additionally this warning will be set if any portion of the installation is within a National Weather Service Watch Box and the weather is progressing as forecasted.

Wind Warning – Sustained winds 18-33 knots or gusts to 25 knots are forecast.

Gale Warning – Sustained winds of 34-47 knots are forecast for harbors, inland waters, ocean areas, airfields and installations.

Storm Warning – Sustained wind of 48 knots or greater are forecasted for harbors, inland waters, ocean areas, airfields and installations.

WARNINGS AND ADVISORIES ISSUED BY OTHER FEDERAL AGENCIES

The National Hurricane Center and the National Weather Service issue the following warnings, advisories and bulletins as sources of tropical cyclone specific information.

Public Advisory - Provides hurricane warning and forecast information.

Marine Advisory - Provides detailed hurricane track and wind field information.

Tropical Cyclone Update - Highlights significant changes in a hurricane between advisories.

Probability of Hurricane/Tropical Storm Conditions - Provides a measure of the forecast track accuracy.

Hurricane Local Statements - Issued by the local National Weather Service office and provides forecasts on how the storm

may impact a local area.

Tropical Storm Watch - Tropical storm conditions are possible in the specified area within 36 hours.

Tropical Storm Warning - Tropical storm conditions are expected in the specified area within 24 hours.

Hurricane Watch - Hurricane conditions are possible in the specified area within 36 hours.

Hurricane Warning - Hurricane conditions are expected within the specified area within 24 hours.

Warnings and public advisories

The National Weather Service designates the category of hurricanes and issues warnings and advisories based on the current weather conditions.

To find out the current weather condition, tune in to local news channels, radio stations or look online at <http://weather.cherrypoint.marines.mil>.

MCAS Cherry Point destructive weather conditions, warnings and advisories

To find out MCAS Cherry Point's current destructive weather condition, the following resources are available:

Severe weather hotlines:

466-3093 (Military)

464-8333 (FRC East)

466-4083 (DDCN)

<http://www.cherrypoint.marines.mil>.

Base Cable Channel 6

1330 AM

104.9 FM

Station electronic marquees

The severe weather status may also be updated using the Emergency Alert System on base, all-hands e-mails and local television station update systems.

Prepare Your Home

In harm's way

Protecting your home from the damage of a hurricane

Hurricanes have potential for both wind and water damage. A few things can be done to greatly reduce the impact of the storm. The main goal is to prevent wind damage, which in turn will secure the structure and prevent water from entering.

Garden tools, awnings, grills and toys should be anchored or sheltered

Elevate appliances and furniture off the floor and cover in plastic

Keep swimming pools filled to 12 inches below the edge; cover the filter pump and turn off the electricity; add additional chlorine

Insert wedges in sliding patio doors; if not protected, damaging winds will lift them off their tracks and blow into the house

Set the refrigerator on maximum cold; do not open unless necessary; keep a full stock of perishable items and canned foods

Fill bathtubs and sinks with water in case water supply is interrupted or contaminated; turn off main water to the house

Lower radio and television antennas

Stay in a central room or on the downwind side of the house; move to another room as wind direction changes

Close all outdoor electrical outlets and cover with duct tape

Secure garage and porch doors

Prune dead or dying tree limbs

Install storm panels, plywood, or shutters over all windows, skylights, doors and open vents; tape exposed glass to protect from shattering

Store personal papers and irreplaceable documents in the highest point possible in water-proof containers

Take all pets indoors to shelter them from the storm

Move furniture away from exposed windows and doors

Park your vehicle against the garage door and keep the gas tank full

⚠ Turn off main gas valve and electricity before the storm hits; use flashlights

Prepare Your Family

A detailed family plan is just as important as preparing your home and should be known to the whole family.

- Start by discussing the type of hazards that could affect your family. Know your home's vulnerabilities to storm surge, flooding and wind.
- Locate a safe room or the safest areas in your home for each hurricane hazard. In certain circumstances the safest area may not be your home at all, but within your community.
- Determine evacuation routes from your home and places to meet.
- Have an out-of-state friend as a family contact, so all your family members have a single point of contact.

- Know the locations and phone numbers of local emergency shelters.
- Post emergency telephone numbers by your phones and make sure your children know how and when to call 911.
- Check your insurance coverage – flood damage is not usually covered by homeowners insurance.
- Stock non-perishable emergency supplies and a disaster supply kit.
- Use a NOAA weather radio. Remember to replace its battery every six months, as you do with your smoke detectors.
- Take first aid, CPR and disaster preparedness classes.

Emergency Shelters

In the event that your home becomes unsafe during severe weather, you may need to evacuate to an emergency shelter. Evacuation should be a part of your family plan. The Cherry Point shelters may not accommodate pets so maintain a plan for your pet. There are six emergency shelters offered in the Cherry Point area.

Emergency shelters are designed to provide protection for individuals who are displaced due to destructive weather, whose homes may not withstand the impending destructive weather and personnel in a transitory status who cannot be billeted elsewhere aboard the base.

Depending on the nature of the destructive weather, use of shelters by Marines and families aboard the base may become mandatory. Cherry Point's Cherry Tree House and Marine Dome facility are used as emergency shelters for air station residents.

The City of Havelock operates Havelock Middle School, Havelock High School, Arthur Edwards Elementary School and Brinson Memorial School as emergency shelters.

The emergency shelter provides facilities to accommodate military personnel, dependants, civil service and non-appropriated fund employees with emergency food, water, sanitation, medical and religious services for an extended period of time.

Unless ordered to evacuate, personnel billeted in bachelor quarters are to remain in assigned quarters.

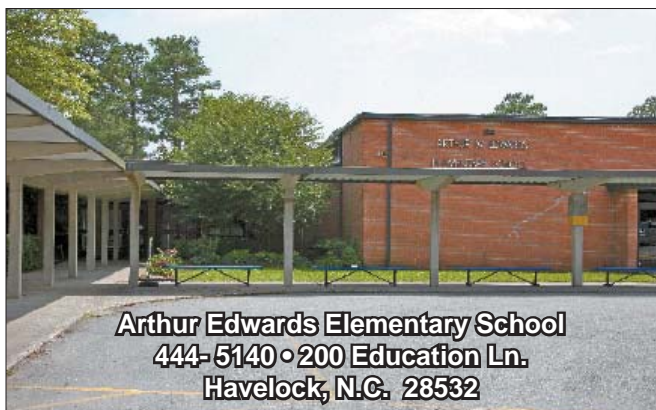


Havelock Middle School
444-5125 • 102 High School Dr.
Havelock, N.C. 28532

PHOTOS BY CPL. NOAH S. LEFFLER



Havelock High School
444-5112 • 101 Webb Blvd.
Havelock, N.C. 28532



Arthur Edwards Elementary School
444-5140 • 200 Education Ln.
Havelock, N.C. 28532



Cherry Tree House
466-4892 • C Street, Bldg. 4415
Cherry Point, N.C. 28533

Disaster Supply Kit

Before a hurricane strikes, you should have a disaster supply kit prepared. Cut out this checklist and post it in a prominent location to check your preparedness.

- ☐ Water – At least one gallon daily per person for three to seven days
- ☐ Food – At least enough for three to seven days
 - Non-perishable packaged or canned food
 - Snack foods
 - Non-electric can opener
 - Cooking tools / fuel – for use in well ventilated area
- ☐ Bedding
 - Pillows
 - Blankets
 - Sleeping bags
- ☐ Clothing
 - Seasonal
 - Rain gear
 - Shoes
- ☐ First aid kit
- ☐ Prescription drugs
- ☐ Items for babies and the elderly
- ☐ Toiletries
 - Hygiene items
 - Moisture wipes
- ☐ Flashlight
 - Extra batteries
- ☐ Radio
 - Battery operated
 - NOAA weather radio
- ☐ Cash (with some small bills)
 - Banks and ATMs may not be open or available for extended periods
- ☐ Keys
 - For cars, home, lockboxes
- ☐ Important documents – in a waterproof container
- ☐ Tools – keep with you during the storm
- ☐ Pet care items
 - To see what you need to bring for your pet, visit the Web site at <http://www.readync.org> or check Air Station Order 3140.2N

Endure the Storm

Chapter 10 in the Destructive Weather Air Station Order 3140.2N gives guidance on enduring severe weather.

When Severe Weather is Imminent

- Start reviewing your family plan.
- Check your disaster supply kit to ensure it is adequate.
- If you know that you will have to evacuate your home, make a reservation at an emergency shelter early. They will fill quickly as the destructive weather gets closer.
- Fill up your vehicle's tank as fuel might be difficult to get for days after the storm.
- Secure all loose items around the outside of your house.
- Waterproof important documents.
- Fill bath tubs and sinks with water for emergency use.
- Disconnect unnecessary electrical appliances to avoid power surges.
- Stay tuned to local radio stations to stay updated on the current weather situation.
- If a hurricane is expected to be category III or higher, MCAS Cherry Point may issue a mandatory evacuation based on the estimated damage or risk assessment.

- If a mandatory evacuation is ordered, start initiating your evacuation plan for your family and pets.

MCAS Cherry Point Actions

When Destructive Weather Condition II is set, liberty aboard MCAS Cherry Point will remain at the discretion of unit commanders and department heads. If you are planning on evacuating your home, shelters are a first-come, first-serve basis and will fill up quickly as weather worsens.

Once Cherry Point reaches Destructive Weather Condition I, at the discretion of the respective commanders or station directorates, all civilian and military personnel neither required for essential/emergency duties nor responsible for providing services to other units/personnel may be secured.

Once DWC I(C) is set, all nonessential personnel will be released to their quarters. Base facilities, except where noted below, will be closed. Movement about the base should be kept to a minimum to allow crews to properly prepare the base.

Once Destructive Weather Condition I(E) is set, all outside on-base activity is prohibited unless authorized

by the emergency operations center.

Mess Hall and MCCS Operations

The mess hall will continue to provide meals during regularly scheduled meal periods or according to a schedule as modified by the EOC until loss of steam, water, electricity or damage forces closure.

The commissary and troop stores will remain open as long as possible to provide base residents an opportunity to purchase emergency provisions.

When Severe Weather Hits

- Stay calm.
- Do not go outside.
- Stay away from windows.
- Use only minimal electrical lighting and appliances.
- There will be a lull in the wind when the eye of the storm passes directly over that lasts from a few minutes to half an hour. Stay in a safe place. The wind will return suddenly from the opposite direction as the eye passes.
- Stay tuned to radio station 1330 AM to keep updated on the MCAS Cherry Point area weather conditions.



Recover from Severe Weather

Once the severe weather has passed, stay vigilant. There are still dangers present as the community begins to recover from the storm. To aid in the return to normalcy, take action under these guidelines from the Air Station Destructive Weather Order: ASO 3140.2N, Chap. 10

- Stay put. Be calm. Water will recede and roads will be cleared soon after the storm.
- Guard against spoiled food in refrigerators. If power has been off for several hours, minimize entry into refrigerators or freezers to retain coldness within.
- Unless you are qualified to render emergency assistance, stay away from disaster areas where you may hamper first aid or rescue work.
- If severe flooding occurs, move to the second floor or attic of your house or to higher ground. Be sure to take your disaster supply kit with you.
- It may take weeks for the area to return to normal. During this time, crews will be working to restore water, electricity, phone lines and to clean up debris.
- Drive cautiously. Along the coast, soil may be washed from beneath the pavement which may collapse under the weight of vehicles.
- Stay off the roads whenever possible to prevent interfering with response crews.
- Conserve food and water until electricity and water are fully restored.
- Clean up small debris in your yard and place it at the curb to assist the clean up efforts but report major damage or debris to the appropriate authorities.
- If you have citizens band radio equipment, tune to channel 9 and inform the disaster control center of injuries and emergency maintenance conditions if telephone lines are inoperable. MCAS Cherry Point EOC monitors CB channel 9.
 - Stay tuned to radio station 1330 AM to keep updated on the MCAS Cherry Point area recovery status and weather conditions.

Emergencies

- For general emergencies, call 911.
- Persons injured during the storm should seek medical help.
- For a medical emergency, call 911 or Naval Medical Clinic Cherry Point at 466-0266.

Downed Wires or Electric Problems

- Do not touch loose or dangling wires. Report downed wires on base to Facilities Maintenance at 466-4363 or off base to Carteret-Craven Electric Co-op at (800) 682-2217.

Fires

- Be alert to prevent fires.
- Lowered water pressure makes fire fighting difficult after storms.
- To report a fire, call 911 or the Cherry Point Fire Department at 466-3333 if on base.

Water Problems

- To report broken sewer or water mains, call Facilities Maintenance at 466-4363/5334 if on base or Craven County Utilities Department at 636-6615 if off base.
- Base residents should avoid using base water until cleared by public announcement. Boiling water to kill contaminants will suffice until the all clear has been issued,

Legal Incidents

- To report crimes: On-base call the Provost Marshal at 466-3615/3616/3617/3393, off-base call the Craven County Sheriff's Office at 636-6620 or the New Bern Highway Patrol at 514-4714.

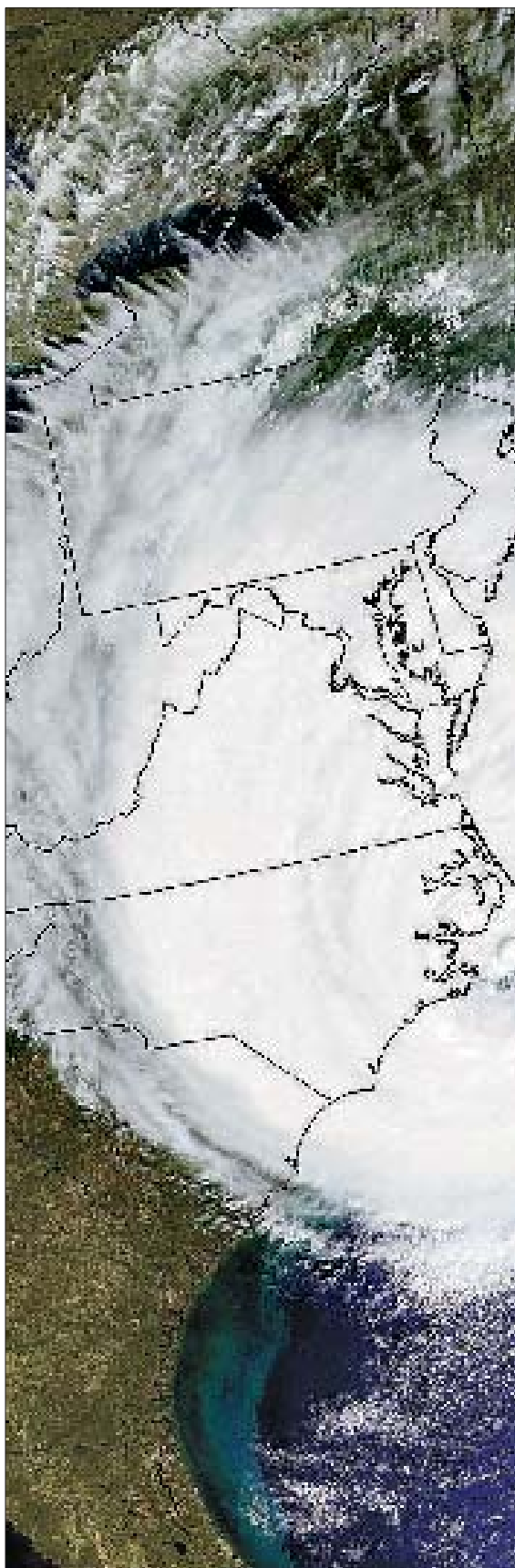


SGT. KEVIN P. HAYNER



SGT. NATHANIEL C. LEBLANC

Maintain Your Preparedness



NOAA

Before the Storm

- Know destructive weather conditions.
- Have a detailed family plan.
- Prepare your home.
- Know emergency phone numbers.
- Plan for your pets. Don't leave them alone.
- Make sure flashlights, battery powered lanterns and other sources of light are readily available.
- Make sure you have an adequate supply of medicine, first aid supplies and baby items.
- Keep a supply of bottled water, non-perishable food items and batteries on hand.
- Consider evacuating your family if necessary.
- Charge cell phones

During the Storm

- Stay inside.
- Keep emergency information close by.
- Waterproof important documents.
- Disconnect all unnecessary electronic appliances such as televisions, computers and microwaves.
- Stay away from windows.
- Do not use phone or run water during lightning storms.
- Stay updated on the current weather situation via radio or telephone.
- Fill bathtubs with water

After the Storm

- Limit travel to allow recovery crews to operate.
- Keep emergency phone numbers close at hand.
- Conserve food and water until power and water are restored.
- If flooding occurs, move to higher ground.
- Report downed power lines and broken water mains to appropriate authorities.
- If electric service is out, check with your neighbors to see if they have power. If they do, you may have only a blown fuse or tripped breaker.
- If using a portable generator, make sure it is used in a well ventilated area.
- Replenish supplies of batteries, bottled water and non-perishable food items as soon as possible in preparation for future storms.
- Make adjustments to your family plan for the next storm.

Emergency Phone Numbers

General Emergency.....	911
Clinic.....	466-0266
Fire Department.....	466-3333
Military Police.....	466-3615
	466-3616
	466-3617
Facility Maintenance.....	466-4363
	466-5334
Telephone Repair.....	466-2100
Red Cross(New Bern).....	637-3405
Emergency Operations Center	466-5216
	466-5217
EOC (Provost Marshal/Fire Dept).....	466-3393
EOC (Coast Guard)	466-6343
Brinson Memorial School	514-6431
Havelock EOC.....	444-3928
	444-3880
Havelock (Police Dept/EOC).....	447-1111
	447-1112
Carteret County Emergency Management Agency	728-8470
Craven County Emergency Management Agency	636-6608
Craven County Sheriff's Office	636-6620
Craven County Utilities Dept.....	636-6615
Carteret-Craven Electric Co-op	(800) 682-2217
New Bern Highway Patrol	514-4714
MCAS Command Duty Officer.....	466-5236
	466-2848
	466-2847
2ND MAW Command Duty Officer	466-4388
	466-4313
	466-4314
Mess Hall.....	466-5766
Emergency Shelters	
Cherry Tree House	466-4892
	466-5493
	466-3769
The Marine Dome.....	466-2566
Havelock Senior High School	444-5112
	444-5113
Havelock Middle School	444-5125
Arthur Edwards Elementary School....	444-5140
Brinson Memorial School	514-6431